Amendments to the Drawings

Please substitute for the single Replaced Drawing Sheet which forms one page of the two-page Appendix the single Replacement Drawing Sheet which forms the other page of the Appendix. This substitution corrects Fig. 2 with respect to the originally missing reference numeral 24.

Remarks/Arguments

This Amendment is prepared in response to the Office Action of February 23, 2006 regarding the above-identified U.S. Patent Application. In that Action, the Examiner rejected claims 1-6, inclusive, and 11 under 35 U.S.C. § 103(a) as being unpatentable over Wikipedia.org taken in conjunction with U.S. Patents Nos. 6,651,929 B2 to Dionne, 4,704,143 to Percy, and 5,011,519 to Maeda.

Applicant has very carefully reviewed the Examiner's comments and the cited and applied prior art, and by the present Amendment has currently amended claims 1 and 11 to make more abundantly clear why these claims, and all claims depending from these claims, clearly distinguish in all senses over the cited and applied prior art. Claim 2-5, inclusive, have been retained as original claims, and claims 6-10, inclusive, continue to be withdrawn claims.

Additionally, applicant has amended the text found on pages 3, 6 and 7 in the specification to focus greater attention on key distinctions which exist between applicant's claimed invention and the cited art. With respect to text amendments made on page 6 in the specification, the Examiner should note that the lower case letter a used with each of reference numerals 20 and 22 is to be underlined in the newly added sentence of text which includes these two reference numerals.

Further, via the two-page Appendix which accompanies this Amendment, applicant has proposed a revision in Fig. 2 in the drawings in order to correct an error in that figure with respect to inadvertent omission of the reference numeral 24.

The Examiner's § 103(a) rejection of applicant's claims, on the basis of an

elaborate assembly of four different prior art references, provides a classic example of claim rejection based upon aggregation and speculation. *Nowhere in the cited art is there illustrated, discussed or suggested an electrical sliding-contact zone,* let alone there being, in this cited art, any recognition, or even a hint, regarding the special, unusual, and heretofore illusive, sliding-contact zone wear problem which applicant *alone* has discovered and addressed. The Examiner's rejections of applicant's claims are based heavily on pure speculation with regarding even the *presence* of an electrical sliding-contact zone which is, or needs to be, guarded by a specially controlled inflow of grit-particle-filtered air. It should especially be noted, that filtering performed by implementation and practice of the present invention is filtering which deals with air-flow-borne grit which is created in, and comes from, a region *outside of the electrical sliding-contact zone.* This consideration is very important to have in mind as one recognizes that *traditionally, and by intentional design*, the electrical sliding-contact zone of the type protected by applicant's invention is inherently a *grit- producing wear zone*, but one which is grit-producing by virtue of *brush wear which does not threaten to produce damaging, or even appreciably noticeable, commutator or slip-ring wear.*

It is thus, in this context, very important for the Examiner to recognize that the electrical sliding-contact zone in a generator is typically one which exists between a rotating commutator or slip ring which is in contact *with a wear-intended brush.* It is thus the case that the typical electrical sliding-contact zone is definitively conceived, as just stressed above, to be a wear zone with respect to brushes, and thus a zone wherein wear particles resulting from brush wear are always present.

There is absolutely no hint in the art that anything needs to be done with respect to keeping such brush wear particles out of the electrical contact zone, and indeed it is not possible to keep brush wear particles out of that zone since they are directly generated at the site of, and within, that zone. It is further important to recognize, and to re-emphasize in this recognition, that such wear activity, and the presence of such wear particles coming from brushes, are design-intended in the construction of such an electrical sliding-contact zone. Filtering to deal with these innocuous brush-wear particles is neither possible nor sensible by any act of outside-entering-air filtering. Accordingly, nothing regarding conventional, prior state-of-the-art thinking about the traditional electrical sliding-contact zone of the type under discussion here even remotely perceives or suggests any need for, or consideration of, outside-entering-air filtration.

The Examiner's assertions about the supposed obviousness suggestions made by the cited and applied, four, combined, prior art references, are based, improperly, on purely and highly speculative assumptions – speculative assumptions and thoughts *which clearly rest and depend upon, and which are guided by, applicant's own teachings* as set forth in applicant's specification, claims and drawings.

It is only applicant, and not a single one of the prior art references, who/which recognizes and talks about any form of wear matter, or problem, (and not a *brush-wear per se* matter or problem) in the electrical sliding-contact zone of an electrical generator. It is only applicant, and not a single one of the prior art references, who/which identifies that this problem results from the brushes in such a zone becoming aggressive abraders of commutator components and slip rings. It is only applicant, and not a single one of the prior art references, who/which has

discovered that this aggressiveness is due to collection and embedment in brushes of air-borne grit particles *coming from outside the electrical sliding-contact zone per se.* It is only applicant, and not a single one of the prior art references, who/which talks about providing any form of focused, outside-entering-air filtering for such a zone. It is clearly applicant who has led the way to the discovery and resolution of a serious and dangerous electrical sliding-contact zone wear problem, and who has therefore contributed new and useful patentable invention to the state of the relevant art. Applicant, and not the prior art, is the acknowledgeable discoverer and teacher of this invention, and is thus the awardable discoverer and teacher of the invention.

Applicant's invention focuses on a strikingly non-intuitive and startling wear problem, of very serious and dangerous concern, which involves brushes becoming abraders which create significant wear with respect to contacted commutator elements and slip rings. Wear particles from *outside* the sliding-contact zone, in settings like that addressed by applicant's invention, become imbedded in brushes, and dangerously convert brushes from being docile contactors in an electrical sliding contact zone to becoming aggressive and very damaging abraders of commutator and slip ring elements which with they are in contact.

In currently amended claims 1 and 11, and in amended text presented in the specification, with entry of this Amendment, applicant points out more fully that which is illustrated in Fig. 2 applicant's drawings, which figure discloses a close-coupled fluid-flow connector which closes upon an electrical sliding-contact zone to define substantially all air flowing into that zone – air originating from outside that zone which has been found by applicant to contain dangerous, gritty contaminants that are not created within the subject zone.

Moving on to another issue raised in the February 23, 2006 Office Action, applicant categorically rejects the Examiner's remarks incorrectly suggesting that applicant's claims are not proper structural claims – i.e., not proper structural-combination claims which plainly set applicant's invention apart structurally from the highly speculative, *Examiner-created assumptions* regarding the remarkably distant cited and applied prior art. Quite to the contrary, applicant's claims succinctly and pointedly define a unique and non-obvious, *cooperative, structural arrangement,* including elements which are specially disposed operatively and operationally relative to one another to co-act in a special way, and which, in this dispositional, structural arrangement, definitively cooperate to provide a unique and non-obvious functionality which solves a very serious, and heretofore unidentified and unaddressed, problem.

For the reasons set forth above, applicant strongly asserts that his invention, as set forth in the claims now presented in this application on the basis of entry of this Amendment, is clearly claimed as a unique and a non-obvious structural combination of elements, is clearly distinguishable over the cited and applied prior art, and is therefore clearly patentable. These claims plainly address a serious and dangerous issue which is totally unrecognized in and by the prior art, an issue involving the electrical sliding-contact zone in an electrical device such as a generator, and an issue involving *a setting which finds not even a hint of a mention in the cited and applied prior art.* Accordingly, favorable reconsideration of this application and its claims, and formal allowance of all claims remaining in this case, are respectfully solicited. If the Examiner has any questions regarding the amendment or remarks, the Examiner is invited to contact Attorney-of-Record Jon M. Dickinson, Esq., at 503-504-2271.

Provisional Request for Extension of time in Which to Respond

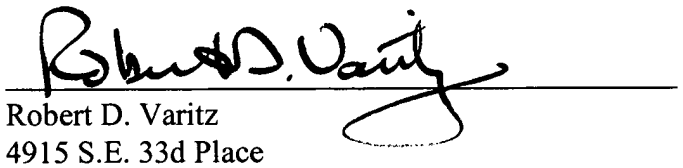
Should this response be deemed to be untimely, Applicants hereby request an extension of time under 37 C.F.R. § 1.136. The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any over-payment to Account No. 22-0258.

Customer Number

56703

Respectfully Submitted,

ROBERT D. VARITZ, P.C.



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CERTIFICATE OF EXPRESS MAILING

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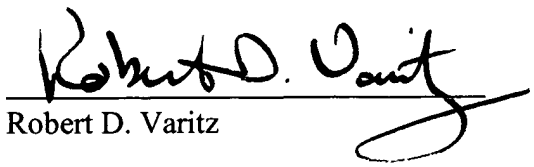
Date of Deposit - May 15, 2006

I hereby certify that the attached Response to Office Action under 37 C.F.R. § 1.111, is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 on the date indicated above and is addressed to:

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Washington, D.C. 22313-1450



Robert D. Varitz

Fig. 1

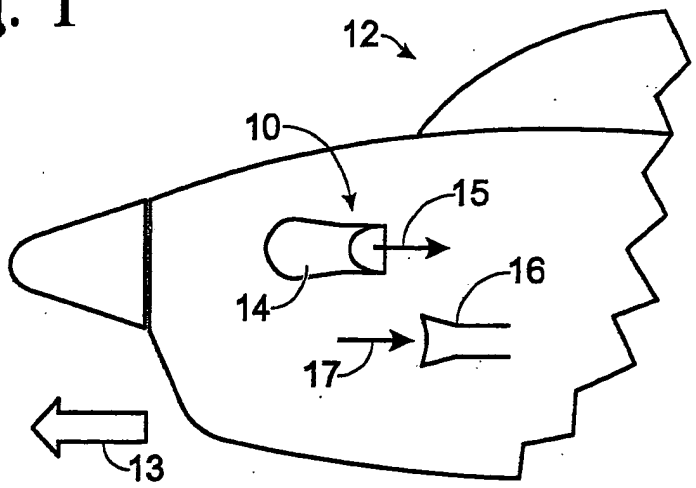


Fig. 2